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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/688,295	10/16/2003	Peilin Chou	N0114/PP/HH	9173

7590 04/13/2006  
Pavel Pogodin  
617 North Delaware Street  
San Mateo, CA 94401

EXAMINER

DAYE, CHELCIE L

ART UNIT	PAPER NUMBER
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2161

DATE MAILED: 04/13/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/688,295

Applicant(s)

CHOU, PEILIN

Examiner

Chelcie Daye

Art Unit

2161

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 16 October 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-8 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-8 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 16 October 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- ☒ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- ☐ Notice of Informal Patent Application (PTO-152)
- ☐ Other: \_\_\_\_\_

**DETAILED ACTION**

1. This action is issued in response to Application filed October 16, 2003.
2. Claims 1-8 are pending.

***Claim Rejections - 35 USC § 112***

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter, which the applicant regards as his invention.

4. Claim1 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Regarding Claim1, the phrase "from time to time" renders the claim indefinite because it is unclear what applicant means by "from time to time". Examiner is unsure how applicant calculates when to perform the pre-search and when not to perform the pre-search. Also, the claim language is indefinite because examiner is uncertain what the outcome will be if the pre-search is performed all of the time or none of the time.

***Claim Rejections - 35 USC § 103***

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

**6. Claims 1-8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Green (US Patent No. 6,741,985) filed on July 31, 2001, in view of Arnold (US Patent No. 6,910,003) filed on July 10, 2000 and further in view of Spivak (US Patent Application No. 20020016800) filed on March 23, 2001.**

Regarding Claim 1, Green discloses a conceptual article collector comprising:

a concept-character string look-up-table indexed by keywords (Fig.4; column 1, lines 33-43 and column 4, lines 5-12, Green)<sup>1</sup>, each keyword corresponding to a plurality of character strings and their respective searching conditions (column 4, lines 46-50, Green); and

a character string-article look-up-table indexed by character strings contained in said concept-character string look-up-table (Fig.6; column 7, lines 4-12, Green)<sup>2</sup>. While, Green does disclose Web documents, which is another form of articles within the look-up-tables, Green is silent with respect to each character string corresponding to a quantity of articles being processed, for searching articles, an article pre-search means to from time to time search in a quantity of articles based on character strings in said concept-character string look-up-table and to store result of such search in said character string-article look-up-table; and an article database to store a quantity of articles to be searched. However, Arnold discloses each character string corresponding to a quantity of articles being processed (column 7, lines 13-15, Arnold), for searching articles (column 6,

lines 23-25, Arnold), an article pre-search means to from time to time search in a quantity of articles based on character strings in said concept-character string look-up-table (column 12, lines 1-11, Arnold) and to store result of such search in said character string-article look-up-table (column 12, lines 14-17, Arnold); and an article database to store a quantity of articles to be searched (column 17, lines 2-6, Arnold). It would have been obvious to one of ordinary skill in the art at the time of the invention to incorporate Arnold's searching of articles into the Green system. Green and Arnold are analogous art because they are from the same field of endeavor of concept-matching of a search string to words extracted from documents. A skilled artisan would have been motivated to combine as suggested by Arnold at column 2, lines 36-39, in order to allow a user to use natural language, and search based on idea concepts, rather than strict Boolean strings. However, the combination of Green in view of Arnold, do not explicitly disclose searching in indexes in said concept-character string look-up-table according to keywords input by user to obtain corresponding character strings therein ([0078], lines 19-24, Spivak), to search corresponding articles of the searched character strings in said character string-article look-up-table ([0025], lines 1-6, Spivak), to calculate the relative intensity values of each searched article and the concept represented by said input keyword ([0059], lines 1-21, Spivak)<sup>3</sup> and to output result of such calculation (Fig.6; [0063], lines 11-13,

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<sup>1</sup> Examiner Notes: In Fig.4, wherein the table is indexed, represents the concept-character string look-up-table. Also, "target words" correspond to keywords.

<sup>2</sup> Examiner Notes: In Fig.6 the characters shown correspond with the word characters within Fig.4.

<sup>3</sup> Examiner Notes: The relative intensity values correspond to "recognition confidence level".

Spivak). It would have been obvious to one of ordinary skill in the art at the time of the invention to incorporate Spivak's teaching into the Green in view of Arnold system. A skilled artisan would have been motivated to combine as suggested by Spivak at [0006], lines 1-4, in order to increase the likelihood that any given search will identify the relevant documents for subsequent review and retrieval.

Regarding Claim 2, the combination of Green in view of Arnold, and further in view of Spivak, disclose the conceptual article collector wherein said concept-character string look-up-table comprises a plurality of keywords (Fig.4, Green) and their corresponding character strings (column 4, lines 48-50, Green) and weights of respective character strings ([0049], lines 1-4, Spivak); wherein said weight of one character string represents influence in the calculation of the relation between an article containing said one character string and the keyword corresponding to said one character string ([0084], lines 1-20, Spivak) and wherein a character string comprises a collection of characters, symbols and/or numbers ([0024], lines 2-6, Spivak).

Regarding Claim 3, the combination of Green in view of Arnold, and further in view of Spivak, disclose the conceptual article collector wherein said

character string comprises a word in the Chinese language system (column 19, lines 8-17, Arnold)<sup>4</sup>.

Regarding Claim 4, the combination of Green in view of Arnold, and further in view of Spivak, disclose the conceptual article collector wherein said article database comprises a communication device connectable to a remote database (column 19, lines 54-60, Arnold).

Regarding Claim 5, the combination of Green in view of Arnold, and further in view of Spivak, disclose the conceptual article collector wherein said article pre-search means searches in said article database at predetermined intervals (column 11, lines 55-59, Arnold)<sup>5</sup>.

Regarding Claim 6, the combination of Green in view of Arnold, and further in view of Spivak, disclose the conceptual article collector wherein said article search means conducts whole text search in said article database if an

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<sup>4</sup> Examiner Notes: The system is applied to documents that can in Japanese and other languages correspond to Chinese language, because Japanese and Chinese characters are known to be very similar, therefore if a system is compatible for one it is understood that it can be used for the other. Also, as stated by the wikipedia encyclopedia: "Chinese characters or Han characters are logograms used in the written forms of the Chinese language, and to varying degrees in the Japanese and Korean languages.

<sup>5</sup> Examiner Notes: The act of continuously updating through a web crawler corresponds to a predetermined interval, because in order to continuously update there has to be a time restraint and also a web crawler only searches when activated (i.e. used).

input search keyword is not contained in the index of the concept-character string look-up-table (column 10, lines 26-45, Arnold)<sup>6</sup>.

Regarding Claim 7, the combination of Green in view of Arnold, and further in view of Spivak, disclose the conceptual article collector wherein said article search means calculates the relative intensity value  $R_n$  of an article (Document  $n$ ) in relation to said concept represented by said input keyword according to the following formula:  $R_n = \frac{\sum S_i W_i}{\sum W_i}$

wherein  $R_n$  represents the relative intensity value of Document  $n$  in relation to the concept represented by the input search keyword ([0061], lines 1-6, Spivak)<sup>7</sup>,  $S_i$  represents number of location of existence or frequency of existence in Document  $n$  of Character String  $i$ , which is corresponding to the input search keyword in said concept-character string look-up-table ([0061], lines 21-28, Spivak),  $W_i$  represents weight of Character String  $i$  defined in the concept-character string look-up-table,  $n, i$  are natural numbers,  $0 < R_n \leq 1$  ([0061], lines 6-21, Spivak)<sup>8</sup>.

Regarding Claim 8, the combination of Green in view of Arnold, and further in view of Spivak, disclose the conceptual article collector wherein said article search means further compares the relative intensity value of a searched

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<sup>6</sup> Examiner Notes: The whole text corresponds to the "original source documents".

<sup>7</sup> Examiner Notes: The relative intensity values correspond to "confidence level" of the documents.



article with a threshold ([0062], lines 1-5, Spivak) and labels articles with relative intensity value greater than said threshold ([0062], lines 5-11, Spivak)<sup>9</sup>.

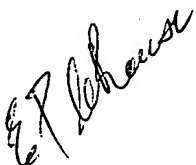
***Points of Contact***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Chelcie Daye whose telephone number is 571-272-3891. The examiner can normally be reached on M-F, 7:00 - 4:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jeffrey Gaffin can be reached on 571-272-4146. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Chelcie Daye  
Patent Examiner  
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April 6, 2006



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<sup>8</sup> Examiner Notes: The summing/adding corresponds to  $\Sigma$ . Also, n and l being natural numbers are represented by ([0059], lines 1-6, Spivak), even though the numbers are not represented as natural numbers, they are a subset a natural numbers.

<sup>9</sup> Examiner Notes: The act of determining to be recognized or unrecognized corresponds to "label", as well as [0083], lines 1-3, Spivak.